



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/922,703	08/07/2001	Masashi Honda	016907-1252	8699
22428	7590	12/28/2004	EXAMINER	
FOLEY AND LARDNER SUITE 500 3000 K STREET NW WASHINGTON, DC 20007			WORKU, NEGUSIE	
		ART UNIT	PAPER NUMBER	
		2626		

DATE MAILED: 12/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/922,703	HONDA, MASASHI
	Examiner Negussie Worku	Art Unit 2626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 03 December 2001.
 2a) This action is **FINAL**. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-11 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-11 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

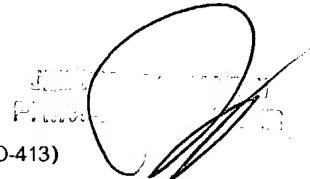
Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date 2.

4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date: _____.
 5) Notice of Informal Patent Application (PTO-152)
 6) Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamanishi (USP 5724444).

With respect to claim 1, Yamanishi discloses an image forming apparatus (as shown in fig 1) comprising: scanner section (scanner section 1 of fig 1) which reads a document a main scanning direction and in a sub-scanning direction to provide image data indicating a density of each pixel within a document image for each image line the main scanning direction, see (col.2, lines 17-20); storing section (RAM 21 and 22 of fig 2) which stores the image data provided from the scanner section a memory, see (col.3, lines 60-62); density histogram creating section (80 of fig 3) which takes in the image data provided from the scanner (scanner 1 of fig 3) for each image line and creates a density histogram of the document data corresponding a predetermined number of image lines, see (col.4, lines 25-28); correction reference value calculating section (81

of fig 3) which calculates set correction reference values for a pixel density correction using the density histogram created in the density histogram creating section see (col.4, lines 27-30); a pixel density correcting section (82 of fig 3) which reads out the image data stored in the memory (memory 21 and 22 of fig 1) and performs correction of a pixel density indicated by the image data on all the read image data using the set of correction reference values calculated in the correction reference value calculating section(81 of fig 3, see col.4, 27-30); and image forming means (fig 1 shows the mage forming apparatus, the printer section 2 of fig 3) which forms an image from the pixel density corrected in the pixel density correcting section (82 of fig 3, see col.4, lines 27-30).

With respect to claim 2, Yamanishi discloses the apparatus (as shown in fig 1) wherein the predetermined number image lines is equal to or less that all image lines document image read out from the scanner section, (the image data red by scanner and stored in memory 21 and 22 of fig 2)

With respect to claim 3, Yamanishi discloses an apparatus (as shown in fig 1), wherein the storing section (memory 21 and 22 of fig 2) comprises a means which starts reading out (scanner CPU 13 of fig 2 a means of read out data) of data when data corresponding the predetermined number image lines has been stored the in memory (memory 21 and 22, see col.3, lines 60-62).

With respect to claim 4, Yamanishi discloses an apparatus (as shown in fig 1), wherein the density histogram creating section (80 of fig 3) has means which keeps a total data amount density histogram constant irrespective of the number of image lines taken in, see (a histogram fixed value col.5, lines 45-49).

With respect to claim 5, Yamanishi discloses the apparatus (as shown in fig 1), wherein calculating section comprises means (81 of fig 3) which detects two representative densities (D_B , D_w) of a background and a character of the document from the density histogram created by the density histogram creating section (80 of fig 3); and the pixel density correcting section (83 of fig 3) comprises means which corrects the input pixel density according the following equation, $DN = DI - Dw) FF(H) / (DB - DW)$ where DI is an input pixel density, see (col.5, lines 30-35), Dw is a representative character density, FFH is the maximum density indicated by hexadecimal number, and DN a corrected pixel density, see (col.5, lines 35-40).

With respect to claim 6, Yamanishi discloses an image processing system (44 as shown in fig 3) comprising: storing section (memory 28 of fig 2) which stores image data indicating a density of each pixel within a document image into a memory (memory 21 and 22 of fig 2); histogram creating section (80 of fig 3, col.3, lines 60-62) which takes the image data indicating the density of each pixel within the document image and creates density histogram of the document image on the basis of a predetermined amount image data, see (col.3, lines 60-62); correction reference value calculating

section (81 of fig 3, see col.4, 27-30) which calculates a set of correction reference values pixel density correction using the density histogram created in the histogram creating section (80 of fig 3, see col.3, lines 60-62); and pixel density correcting section (82 of fig 3) which reads out image data stored in the memory (memory 21 and 22 of fig 2), and corrects a pixel density indicated by the image data regarding all the image data read out using the set of correction reference values calculating section (81 of fig 3, see col.4, 27-30)

With respect to claim 7, Yamanishi discloses the system (as shown in fig 3) wherein the predetermined amount image data is an amount of image data corresponding a partial region in the document image (the image data read by scanner and stored in memory 21 and 22 of fig 2 could be a partial region in the document image, because the document being scanned line by line in a subscan direction).

With respect to claim 8, Yamanishi discloses the system (as shown in fig 2), wherein the storing section (memory 21 and 22 of fig 2) comprises means, which starts reading-data (scanner CPU 13 reads image data from the storage area 21 or 22 of fig 2) when predetermined amount of image data has been stored in the memory.

With respect to claim 9, Yamanishi discloses the system (as shown in fig 1), wherein the histogram creating section (80 of fig 3) comprises means, (range correction

circuit 82) which keeps a total data amount of the density histogram constant irrespective of the amount of image data taken in.

With respect to claim 10, Yamanishi discloses the image processing method (as shown in fig 1), comprising the steps storing image data indicating a density of each pixel within a document image into memory (memory 21 and 22 of fig 2), taking in the image data indicating the density each pixel within document image to create density histogram of the document image on the basis predetermined amount of image data; calculating a set of correction reference values (by calculating section 81 of fig 3) for pixel density correction using the density histogram (80 of fig 3); reading out image data stored in the memory (21 and 22 of fig 2) correct a pixel density indicated by the image data regarding all the image data read using the set correction reference Values, see (col.4, lines 27-30).

With respect to claim 11, Yamanishi discloses the method (as shown in fig 3) wherein the predetermined amount image data is an amount of image data corresponding a partial region in the document image (the image data red by scanner and stored in memory 21 and 22 of fig 2 could be a partial region in the document image, because the document being scanned line by line in a subscan direction).

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Negussie Worku whose telephone number is 305-5441. The examiner can normally be reached on 7am-4pm.

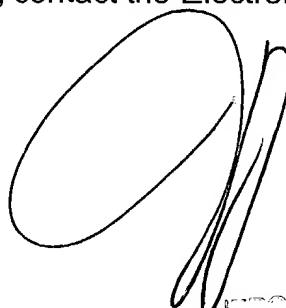
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly Williams can be reached on 703-305-4863. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Negussie Worku

12/20/04



GRANT H
EXAMINER